

PACIFIC GROVE MULTI-CASUALTY INCIDENT DRILL

22 NOVEMBER 1997

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Pacific Grove, California

and

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Vol. 1 in a Series Concerning
Local Repsonse to Terrorism

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I. INTRODUCTION

The Pacific Grove Fire Department of Pacific Grove, California, planned and conducted a drill to anticipate and train for a multi-casualty incident (MCI). The city has an active disaster preparedness program which includes not only professional emergency response services, but community officials and volunteers. It had recently been recognized by the Federal Emergency Management Agency as one of 38 communities nationwide with exceptional emergency preparedness programs¹. The MCI drill described in this report is one of the periodically conducted drills within the overall context of disaster preparedness for the city. It was conducted for training and to improve emergency response procedures.

Pacific Grove is a small seacoast community on the Monterey Peninsula, between the City of Monterey and Pebble Beach, 120 miles south of San Francisco and 335 miles north of Los Angeles. It encompasses an area of 2.86 square miles; has a population of 17,400, an annual rainfall of 18.5", average temperature of 56.5° F, and employs 125 full time city employees. The Pacific Grove Fire Department responds to an average of 1300 calls a year. Approximately 56 % of these calls are medical responses. The Department is made up of both paid and volunteer firefighters. There are 15 paid firefighters and 35 volunteer firefighters, 30 volunteer Ocean Rescue team members, a Fire Chief, Assistant Fire Chief and Division Chief/ Fire Marshal, Administrative Secretary, Disaster Coordinator (PT), and a Fire Clerk (PT).

The Pacific Grove MCI drill of 22 November afforded an opportunity to observe and understand the local emergency response system.

The Institute for Joint Warfare Analysis (IJWA) at the Naval Postgraduate School does research on topics which encompass the concerns of National Defense. Since the end of the Cold War, National Defense has begun to focus upon a more diverse collection of topics including prevention of and response to acts of domestic and international terrorism. There is an increased awareness of the potential for the use of radiological, chemical and biological means, generically referred to as weapons of mass destruction (WMD). Their common characteristic is that these weapons possess lethality which is indiscriminate in their target selection and which can cause many civilian casualties.

The civilian community faces many incidents with multiple victims for which the response requires the cooperative efforts of more than a single response unit. These are classified as Multi-Casualty Incidents (MCI). Any response imposed specifically for chem-bio terrorism must be within the context of the civil emergency response mechanism of local authorities in order for the response to be credible and effective. The local civil emergency response system must be able to prepare for earthquakes, fires, hazardous material spills, riots, industrial accidents, criminal activities, airplane and multi-car highway

crashes, etc. The police, fire and public works departments of local cities must cope with these disasters initially. It may be hours or even days before state and federal assistance can arrive to help the local authorities. Chem-bio terrorism must be embedded into this Emergency Response System²⁻⁵.

Consequently, a first requirement in preparing for terrorism is to understand the local civil emergency response system of ordinary cities. In a series of IJWA reports, we plan to document civil emergency response scenarios, with the ultimate goal of incorporating chem-bio terrorism response within the existing system. We are developing a model of emergency response and making real-time measurements of response and reaction times in drill exercises.

The information we obtain has a variety of uses beyond our goal of modeling chem-bio terrorism response. The model can be used for multi-casualty response to study the effects of a variety of response scenario changes. It is time-consuming, personnel intensive and expensive to conduct real drills and not all contingencies can be practiced. With the model under development, we can simulate the effects of a variety of plausible contingencies. For example, the effects of traffic jams could be accommodated by changing the travel times of fire engines and ambulances in the computer simulation. The availability or unavailability of different units could be considered by changing the kinds and numbers of ambulances or equipment, e.g. jaws of life, decontamination capabilities, etc.

In this first report, we document the Pacific Grove Fire Department's MCI drill of 22 November 1997 and present an initial analysis of sequence of events. In the second report, we will present model parameters using the data obtained during this drill. The intended value of this first report is the documentation of the event and the extraction of immediate lessons learned. Unedited feedback commentary are presented so that this report may be useful to the reader to understand the different perspectives among the various participants.

II. THE MULTI-CASUALTY INCIDENT DRILL

This report concerns the Saturday, 22 November 1997 Multi-Casualty Incident Drill conducted by the Pacific Grove Fire Department. This report emphasizes the data collection to support understanding of the local response mechanism. To support the exercise goal of improving emergency response, lessons learned and recommendations are presented.

The MCI scenario was a traffic accident in which a passenger vehicle collided with and overturned a van and a large school bus on Ocean View Blvd. at Asilomar, Pacific Grove California. The bus driver and the driver of the passenger vehicle were under the

influence of alcohol making the incident a crime scene. Approximately sixty victims were involved, including fifteen fatalities. Some ten fire response vehicles, five ambulances and a medical evacuation helicopter responded to the scene in addition to a variety of Pacific Grove police sedans, a California Highway Patrol motorcycle, three Red Cross Emergency Response Vehicles, a Salvation Army canteen van and two local television station vans. Doc's Garage in Salinas contributed towing capability to turn over and upright vehicles involved in the accident. The County Emergency Medical Service and other planning agencies provided observers to this drill. All in all, about 170 players participated in the event.

Besides the Pacific Grove Fire, Police and Public Works Departments, units from Monterey Airport Fire Department, Seaside Fire Department, Monterey Fire Department, , California Highway Patrol, Carmel Fire Department, Carmel Mid-Valley Fire Department, Salinas Fire Department and Salinas Rural Fire Departments responded. Medical Response was provided by the American Medical Response (AMR) ambulances, one ambulance from Carmel Regional Ambulance Service and a medical helicopter from CALSTAR. Hospital support was provided by Community Hospital of Monterey Peninsula (CHOMP), Natividad Medical Center and Watsonville Hospital. The County Communications/ 911 office was fully integrated in this drill. The County Sheriff's office provided two coroners. Some 60 victims were provided by volunteers from the Monterey Peninsula Community College nursing program and students from the Defense Language Institute (DLI). Support services were provided by the Monterey Chapter of the American Red Cross, the Carmel-by-the Sea Red Cross Chapter, the Santa Cruz Red Cross Chapter and the Salvation Army. Data taking was conducted by volunteer airmen from the DLI.

In addition, the McDonald's Restaurant on Forest Avenue, Pacific Grove, provided egg McMuffins at 0630 for the volunteers before the drill.

The incident drill officially began at 0900 and lasted until about 1130.

III. CHRONOLOGY

III.1 Preparation

The MCI Drill was conceived by Assistant Chief Andrew Miller, Pacific Grove Fire Department, sometime in August 1997. Appendix 1 presents the Exercise Plan prepared for the MCI drill. A series of planning meetings were held on October 15 , November 4 and November 22 at the PG Fire Station. (Appendix 2). The Pacific Grove Fire Department made logistic preparations for moulage of victims and coordination. Representatives of the Naval Postgraduate School were invited to observe the exercise.

Naval Postgraduate School representatives visited some of the other participants to receive briefings from the County Communications/ 911, CHOMP, Monterey County Emergency Medical Service, AMR and Salinas Valley Medical Hospital. In anticipation of a this MCI drill, NPS also attended an after action critique in Soledad of an actual multicasualty hazardous material incident after a purported ammonia leak.

III.2 Pre-Drill Orientation

On the day of the drill, victims and data collectors assembled at about 0600 at the Pacific Grove Fire Department. The data collectors were given a conference room in the Pacific Grove Police Department. The data collectors were airmen, mostly E2, assigned to the U.S. Air Force 311 Training Squadron at the Defense Language Institute. Because they had been selected specifically for language training, their academic capabilities and initiative were high, characteristic especially important since this was the Naval Postgraduate School's first experience with participation in an MCI drill and individual initiative was needed when unanticipated events occurred. Among the data collectors, the level of background ranged from those who did not know what an emergency drill was to those who had been volunteer firefighters in their home town.

The data collection packets were designed so that each data collector would shadow a key player in the MCI drill according to the MCI organization chart (see Appendix 4).

A short orientation was provided to the volunteer data collectors describing our general goals and data collection methodology. The nature of an MCI and logistics of the particular drill were presented.

III.3 Event Initiation

The PG Public Works Department had barricaded Ocean View Blvd. prior to 0730 so that vehicular traffic was detoured around a five block long area. Ocean View Boulevard at that site was bounded on the inland side by the Pacific Grove Golf Course and on the other side by Monterey Bay, so the site location insured minimal inconvenience to the general public. The only citizen complaint received was from a local resident of noise generated by the medical evacuation helicopter.

During the period from 0730 to 0830, a large school bus, van and sedan were towed to the site. The bus and van were flipped on their side and the passenger sedan was parked adjacent to the bus. The vehicles had had their windows removed and the automotive fluids drained prior to the incident so that an actual hazmat spill was not a consideration for this exercise.

At 0830 carpools and vans took the moulaged victims and data collectors from the Pacific Grove Fire Department to the drill site.

At 0906 the passenger vehicle was put ablaze and the incident drill began. Victims acted realistically with hysteria and screaming. The area had not been cordoned off, so golfers and pedestrian traffic was not impeded. Three Pacific Grove High School long distance runners were somewhat taken aback, but a burning car and screaming victims did not seem to affect the golfers' game too much.

Within 3 minutes of notification, the Pacific Grove police department arrived. The fire department appeared and extinguished the flames in the burning car by 0924.

III.4 The Event

Appendix 3 presents a chronology of events as recorded by various data collectors shadowing key participants in the drill. The clock time readings for County Communications, our data collectors, CALSTAR and AMR were in general, but not exact, agreement. Data collectors had synchronized their watches prior to departing the staging area, but there was no synchronization of times with other organizations. The log presents the activities of various functions during the drill in one minute increments from 0900 to 1130.

It is important to notice that in many instances, even though individual supervisors for various functions had not been formally assigned, the functions were carried out by other participants.

Furthermore, there are instances in which ambiguity exists in the times recorded. For example, our data collectors at the site recorded the first ambulance leaving the scene at 0959 and the arrival at CHOMP was reported to be 1002. This may be due to lack of synchronization of clocks. In this report, we do not attempt an in-depth analysis, but simply present the recorded data.

The general sequence of events are given below.

0905 call in incident
0907 MCI alert from County Comm
0910 police arrive
0912 ambulance arrives - MCI activation from County Comm
0913 fire trucks arrive
0911 start triage
0913 move minor injured to side
0915 CHOMP notified to be base hospital

0917 move first injured out of back of bus
0921 Transportation Group established - establish communication with base hospital
0923 Red Cross arrive - EMS notified by County Comm - assign 13 patients to van
0924 fire contained - inform press - 2 vans arrive
0926 firefighters in bus - separate minor injured - traffic plan set up
0930 enter bus front and cut bus seat
0931 organize area - move serious injuries to ambulance area
0933 stretchers taken to treatment area
0934 ambulance route established
0936 back boards on scene
0939 helo request landing instructions - initial triage complete - lay out tarps
0940 treatment area established - everyone out of bus except dead - short of personnel
0945 area contained - re-triage established - going in van sun roof
0947 1st victim removed from van
0946 EMS arrives - Multi-casualty trailer arrives from airport
0951 extrication complete
0952 helo lands
0959 1st ambulance departs
1002 1st patient arrives at CHOMP - police coms bad
1004 both vans filled with patients
1007 food passed out to rescuers - report 34 transported, 13 immediate on site
1012 helo lands at Watsonville
1014 morgue established
1016 request additional medical resources
1020 send personnel for rehabilitation
1022 minor treatment van departs
1025 coroner arrives
1026 rehabilitation established
1040 helo needs fuel due to long hovering time
1044 no more ambulances available report
1052 take dead to morgue
1104 helo departs
1116 all deceased out of bus
1117 10 victims remain on site
1120 demobilize

IV. POST EVENT

A post event meeting was held on December 9, 1998 to discuss some immediate lessons learned. At this meeting most of the emergency response agencies were represented and summary reports were presented to the other participants. A useful consequence of this meeting was to enable participants, who did not visually observe the other participants, to understand and appreciate the activities of those who relied upon them for communication, preparation and follow-through. For example, because of the physical isolation of the County Communication Center from the incident scene, without the post event meeting, there can result a lack of appreciation of the constraints imposed on unseen participants.

A questionnaire was sent to all participants to obtain feedback concerning the MCI drill. Participant responses are presented in Appendix 6.

It is the intent of this report to provide qualitative and quantitative documentation of the 22 November Pacific Grove Multi-Casualty Incident. We hope this information will be used to understand and improve coordination of the activities of the many participants in forthcoming drills and real incidents.

IV.1 Lessons Learned and Recommendations

The general consensus among the participants was that the MCI drill was an educational and necessary exercise. The exercise was large enough to strain the capacity of many of the participating organizations and required the coordination of many agencies. There were some realities which have been learned and need to be anticipated and corrected in future events. Many of these are listed in the observations catalogued in Appendix 6, Participant Comments.

The use of moulage and behavior by the victims created a realistic scene at the site. The incident was not pre-scripted in order that unanticipated events would arise and lessons could be learned from the exercise. Lessons which can be immediately extracted and which can be incorporated into future MCI response drills include:

- The importance of traffic control for smooth entrance and exit of medical emergency response vehicles.
- The need to establish a landing zone for the medical evacuation helicopter before it arrives.

- The need for supervisors to wear identifying vests so that participants can identify those persons with supervisory responsibility and to assist the data collectors.
- The need to set up triage areas sufficiently distanced from the accident.
- Some data takers need to be placed to provide functional area coverage in addition to coverage of individual persons. Data collectors at non on-scene locations such as at ambulance dispatchers and County Communication would help to understand the sequence of events at those support agencies.
- Volunteers from agencies not normally on-scene can be used as "victims" or data collectors so that they might observe first hand the activities of agencies they are supporting. For example, hospital and County Communications employees many times feel frustration because they feel like they are speaking to non-responsive participants. Observation of on-scene activities should lead to mutual appreciation of the roles of all agencies.
- The time between the arrival of ambulances and departure with patients was too long. The reason for this needs to be understood.
- Times and vehicle numbers recorded by the data collectors and other agencies were not always in agreement. It appears this is a discrepancy that goes beyond simple clock synchronization and needs to be understood.
- Delineation of supervisory responsibility and on-scene action needs to be differentiated. Sometimes the supervisor, e.g. incident commander and medical branch director, became too closely engaged in the physical activities of their subordinates that the overall coordination suffered. The desire to "do something" is a natural human tendency, but it is important to emphasize that the requirements for overall coordination sometimes supersedes involvement in a singular action.
- Initially, the incident commander was much too busy because subordinate positions were not assigned.
- A point of consideration and discussion prior to another drill is whether the number of rescuers was sufficient for an incident of this size.

Although many of these aspects had been anticipated in principle, the drill emphasized that geography and specifics of a particular drill magnify operational difficulties. With live drills, we are able to gain experience to adjust to realities.

It is important to recognize that this was the largest exercise conducted at the local level. The involvement of 170 participants is an accomplishment in itself. Experience is a

great teacher. Observing and learning from the glitches during this exercise will help create a more smoothly running operation during the next exercise and, if need be, in the event of an actuality.

REFERENCES

1. (FEMA) 1997) Partnership in Preparedness - A Compendium of Exemplary Practices in Emergency Management, Vol. II, Federal Emergency Management Agency, Washington, DC, May 1997.
2. Multi-Casualty Incident (MCI) Plan, Monterey County Emergency Medical Service, Sept. 1, 1993.
3. Pacific Grove Municipal Code Chapter 3:20, Emergency Services, Pacific Grove City Council Ordinance No. 97-37, August 6, 1997.
4. California Emergency Services Act, California Government Code Sections 8607 (a), Standardized Emergency Management System (SEMS), Implementation Regulations California Code of Regulations, Title 19, Div. 2, Section 2407, effective December 1, 1996.
5. Hospital Emergency Incident Command System (HEICS), contained in Multi-Casualty Incident (MCI) Plan, Monterey County Emergency Medical Service, Sept. 1, 1993.

Pacific Grove Fire Department

Gregory H. Glass, Fire Chief
Andrew D. Miller, Assistant Fire Chief
David Brown, Division Chief
Paula D. Fry, Secretary to the Fire Chief
Russell C. Coile, Disaster Coordinator
Jodie Coleman, Fire Clerk

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EMERGENCY TELEPHONE
911

Pacific Grove Fire Department Mass Casualty Incident Drill

November 22, 1997

EXERCISE PLAN

Pacific Grove Fire Department
Mass Casualty Incident Drill 11-22-97

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EXERCISE PLAN

I. BACKGROUND/GOAL

Background

The Pacific Grove Fire Department has participated each year since 1990 in the City of Pacific Grove's annual functional earthquake exercise. The City participates in the State of California's earthquake exercise scheduled for the first Tuesday in April each year. These functional exercises primarily focus on activation of the City's emergency operations center.

Recently, the Pacific Grove Fire Department has conducted several full-scale multi-casualty incident exercises with a small number of victims. This full-scale drill was designed to provide realistic training in multi-casualty incident exercise with a larger number of victims.

Goal

The goal of this exercise is to provide training for mass casualty response situations, and to practice the coordination among multiple agencies and their respective emergency management organizations specified in the Monterey County Multi-Casualty Incident Plan (MCI Plan).

II. CONCEPT, PURPOSE, AND OBJECTIVES

Concept

This will be a full-scale real-time exercise. The scenario is a multiple vehicle accident and fire involving an 85 passenger bus, a van, and a sedan. At least 65 injured victims need to be rescued with major extrication problems, triaged and transported to hospitals in two counties by ambulances and medical helicopters.

The Incident Command System (ICS), the Monterey County Multi-Casualty Incident Plan (MCI Plan), and the City of Pacific Grove's Standardized Emergency Management System (SEMS) Multihazard Functional Plan will be used in the response to a multi-casualty accident. SEMS requires the use of ICS for incident management at the SEMS Field Response level.

Purpose

The purpose of this exercise is to provide realistic training involving multiple casualties to enhance emergency management readiness of the Pacific Grove Fire, Police, and Public Works Departments, participating mutual-aid fire departments, hospitals, Emergency Medical Services (EMS)

Agency, medical transport personnel of American Medical Response and Cal-Star, and disaster volunteers of the American Red Cross, and Salvation Army. The Naval Postgraduate School will have an opportunity to collect data for research purposes.

Objectives

1. To test Monterey County response capabilities to a mass casualty accident in Pacific Grove.
2. To practice with and evaluate the Monterey County Multi-Casualty Incident Plan.
3. To practice with and evaluate the Incident Command System (SEMS Field Response Level).
4. To provide hands-on training in a real-life emergency environment with a large number of injured victims.
5. To collect and evaluate critical emergency response data as a part of a research project to develop computer models of mass casualty incidents.

III. ARTIFICIALITIES AND ASSUMPTIONS

Artificialities

1. Victim injuries will be moulaged or simulated.
2. Exercise communications will be identified as "exercise".
3. Some medical transport may be made by van, simulating an ambulance
4. The vehicles involved in the accident will be pre-staged in place.

Assumptions

1. Exercise weather is actual weather.
- 2.. Exercise time is real time.
- 3.. Normal EMS/Hospital staffing.
4. Pacific Grove Fire, Police, and Public Works Departments will have normal Saturday staffing and equipment levels.

IV. EXERCISE PARTICIPATION

Pacific Grove Fire Department
Pacific Grove Police Department
Pacific Grove Public Works Department
Fire Departments:
 Monterey
 CDF Pebble Beach
 Naval Postgraduate School
 Seaside
 Airport

Carmel-by-the-Sea
Marina
Highlands
Salinas
Mid-Valley

Monterey County:

Communications Center
Office of Emergency Services
Emergency Medical Services Agency

Cal-Star Air Ambulance

American Medical Response

Carmel Regional Fire Ambulance

American Red Cross:

Monterey County Chapter
Carmel-by-the-Sea Chapter
Santa Cruz County Chapter

Salvation Army

Hospitals:

Community Hospital of the Monterey Peninsula (CHOMP)
Natividad Hospital
Watsonville Community Hospital
Salinas Valley Memorial Hospital

Doc's Towing, Salinas

American Heat Productions

Naval Postgraduate School

Defense Language Institute

P.G. Fire Dept. MCI Exercise Planning Team

(Representatives from organizations listed above)

V. REFERENCES

1. Monterey County Multi-Casualty Incident Plan (Sept.1,1993)
2. Pacific Grove SEMS Multihazard Functional Plan (Nov.27,1996)
3. Incident Command System (SEMS Field Response Level)

VI. EXERCISE CONTROL

The Exercise Director will control the exercise. He will also supervise safety and security concerns for the exercise.

VII. EVALUATION AND DATA COLLECTION

The Exercise Director will invite all participating organizations to a debriefing, post-exercise review, and evaluation workshop after the exercise. The purpose of this meeting will be to review the exercise and collect suggestions and recommendations of lessons learned from participants.

A data collection team will be present during the drill to observe the exercise and collect data on a not-to-interfere basis. This special data collection is in addition to information normally recorded by operational personnel in carrying out their responsibilities, such as ICS Form 214 Unit Log. A copy of the usual operational records will be made available to the data collection team after the exercise to be used in preparation of their data report for the Exercise Director. The data collection effort will also be used by researchers at the Naval Postgraduate School in development of computer models of mass casualty incidents.

VIII. COMMUNICATIONS

Communications will be as specified in the Monterey County Multi-casualty Incident Plan.

IX. SAFETY AND SECURITY

This exercise will involve more than 170 victims, emergency responders, and support personnel. There will also be newspaper and TV station reporters and photographers, data collectors, and official visitors such as Pacific Grove City Council members. Safety should be a matter of concern for all participants.

Security for this exercise shall be the responsibility of the Pacific Grove Police Department.

X. REPORTS

After-Action Report

An exercise after-action report will be prepared and distributed to participants.

XI. PUBLIC INFORMATION

Public information will be provided to appropriate media representatives.

The media, the public, and Monterey Communications Center, and Monterey County Office of Emergency Services have been advised of the exercise.

XII. INSTRUCTIONS TO PARTICIPANTS

1. Questions should be discussed with the Exercise Director.
2. Actions should be consistent with the Monterey County Multi-Casualty Incident Plan.
3. Save and forward all documentation and exercise records to the Exercise Director who will make them available to the Data Collection Team.
4. Be prepared to discuss briefly your comments and lessons-learned at a workshop after the exercise.
5. Complete the Exercise Critique form and forward it to the Exercise Director after the exercise.

XIII. SCHEDULE FOR MCI EXERCISE ON NOVEMBER 22, 1997

0600	Victims report to Pacific Grove Fire Department for moulage Data Collectors report to Pacific Grove Police Department (Conference Room) for instruction in data collection
0700	Ocean View Boulevard blocked and security posted
0730	Doc's Towing brings bus, van, and car to accident scene
0830	Victims are placed at accident scene Data collectors on scene
0900	Exercise begins.
1200	Exercise finishes (estimated) Data collectors report back to Police Department to turn in data sheets and review data collection
1400	End of data review (estimated)

XIV. DISTRIBUTION

Participants - one copy for each organization

EXERCISE PLAN ANNEXES

ANNEX A: PLANNING MILESTONES

15 Oct 1997	1030 MCI exercise planning meeting at Pacific Grove Fire Department
4 Nov1997	1030 MCI exercise planning meeting at Pacific Grove Fire Department
18 Nov1997	1030 MCI exercise planning meeting at Pacific Grove Fire Department
22 Nov 1997	Conduct Exercise

ANNEX B: SCENARIO

The scenario is a multiple vehicle accident and fire involving an 85 passenger bus, a van, and a sedan. At least 65 injured victims need to be rescued with major extrication problems, triaged and transported to hospitals in two counties by ambulances and medical helicopters. This will be a full-scale exercise.

ANNEX C: PARTICIPANTS

Pacific Grove Fire Department
Pacific Grove Police Department
Pacific Grove Public Works Department

Fire Departments:

Monterey
CDF Pebble Beach
Naval Postgraduate School
Seaside
Airport
Carmel-by-the-Sea
Marina
Highlands
Salinas
Mid-Valley

Monterey County:

Communications Center

Office of Emergency Services
Emergency Medical Services Agency
Cal-Star Air Ambulance
American Medical Response
Carmel Regional Fire Ambulance
American Red Cross:
 Monterey County Chapter
 Carmel-by-the-Sea Chapter
 Santa Cruz County Chapter
Salvation Army
Hospitals:
 Community Hospital of the Monterey Peninsula (CHOMP)
 Natividad Hospital
 Watsonville Community Hospital
 Salinas Valley Memorial Hospital
Doc's Towing, Salinas
American Heat Productions
Naval Postgraduate School
Defense Language Institute

P.G. Fire Dept. MCI Exercise Planning Team
 (Representatives from organizations listed above)

ANNEX E: COMMUNICATIONS PLAN

Communications will be conducted on both handheld radios and cellular telephones in accord with the MCI Plan

ANNEX F: MEDIA PLAN

Purpose:

The purpose of this annex is to identify steps taken to publicize this mas casualty drill and to enhance relationships with the media.

Operation:

The Public Information Officer's function will be consistent with the Pacific Grove SEMS Multihazard Functional Plan.

The following action steps have been taken in preparation for the exercise scheduled for November 22, 1997.

Before exercise:

- Prepare press release
- Notify appropriate agencies about exercise
- Set up media and observer staging area.
- Coordinate with Videographer who is preparing the training video

During exercise:

- Invite media to exercise briefing
- Escort media to view area
- Provide media with periodic exercise briefings
- Escort media to photo opportunity staging area

ANNEX G: SAFETY AND SECURITY PLAN

Purpose

The purpose of this annex is to outline the measures that will be taken to conduct a safe and secure full-scale multi-casualty exercise.

1. All participants are required to consider safety first and to alert safety officers of safety issues. Safety officers shall have the authority to stop the exercise.

2. Should any person involved in the conduct of the exercise observe an unsafe condition or sustain a real injury, he/she shall immediately notify a safety officer.

3 The word “FAILSAFE” will be the keyword to stop all exercise activities.

4. In the event of a “real” emergency that requires the response of any of the participants, or should injury occur, “FAILSAFE” will be declared and the exercise shall cease. Medical standby will be contacted immediately.

5. All responses to the scene from staging may be CODE 3 (red lights and sirens), with due regard for traffic. Response from treatment area to simulated hospital will be CODE 2.

6. Emergency medical standby will be provided by one paramedic transport unit at rehab. If that unit is called away, a participating unit will replace it. If participating fire units called into service “FAILSAFE” will be called until situation is adjusted.

Appendix 2 List of Attendees at Planning Meetings

All area codes are 408.

Planning meeting participants, Oct. 15, 1997

John Willet	Carmel Fire	624-1718
Mary Wurth	CHOMP Base Hospital Coordinator	622-0277
Andrew Miller	Pacific Grove Fire Department	648-3111
Liz Crooke	County Communications 9-1-1	647-7901
Paul Ireland	Monterey County OES	759-6686
Steven Foster	CALSTAR	848-2507
Elizabeth Dawkins	Pacific Grove Fire Dept	648-3111
Bill Kennedy	Pacific Grove Police	648-3143
		643-7764 voice mail
Peggy Toft	EMS	755-5013
Xavier Maruyama	Naval Postgraduate School	656-2431
Mike Nelson	AMR	883-3270 dispatcher
Anthony Cefeliu	AMR	883-3280 bus. office
Gordon Schacher	Naval Postgraduate School	656-1104
Tracy Villanueva	AMR	815-6426

Planning meeting Participant , Nov. 4, 1997

Xavier Maruyama	NPS	656-2431
Gordon Schacher	NPS	656-1104
Jim Stubblefield, MD	EMS, Mo. Co.	755-5013
Peggy Toft	EMS	755-5013
Mary Foraker	CALSTAR	692-9002 Pager
Bill Kennedy	PGPD	648-3143 / 643-7764
Robert L. Verwold	PGPW	648-3122
Paul Ireland	OES	759-6686
Dennis Holland	OES 9-1-1	647-7900
Joanne Rubin	CALSTAR	692-90004
Howard Main	EMS	424-1867
Lou Bollinger	PGFS (videographer)	443-1103
Russell Coile	PGFD	648-3110
Asst Chief Andrew Miller	PGFD	648-3110 /3111
Laurie Benjamin	EMS	755-5013
Mary Wurth	CHOMP	622-0277
Pat Wainwright	NMC (Natividad)	755-4185
Byron Kitagawa	NMC	755-4195
Mike Nelson	AMR	883-3285
Lori White	SVMH (Salinas)	755-0704

Appendix 3 Consolidated Events Log

The exercise events are recorded in one minute increments for the two and one half hour period from 0900 to 1130 on 22 November 1998. Notice that even though not all the supervisory positions listed in Appendix 4 were formally appointed, the functions of those positions were carried out by some other participant. Thus, the absence of events recorded in a particular column does not mean no action were being taken. The full one-minute interval event logs are presented to give a visualization of the event sequence.

Besides the on scene participant logs according to the exercise plan as presented in Appendix 1, we have extracted key functional event logs for vehicles, physical occurrences, law enforcement, site communications and victims. We separately present event logs obtained from American Medical Response (AMR) ambulance service, CALSTAR helicopter service and from County Communication / 911. There exists general agreement concerning times between the on scene data collector entries and logs from the external agencies. However, details of the ambulance logs are not in conformance with that of the on-scene data collectors.

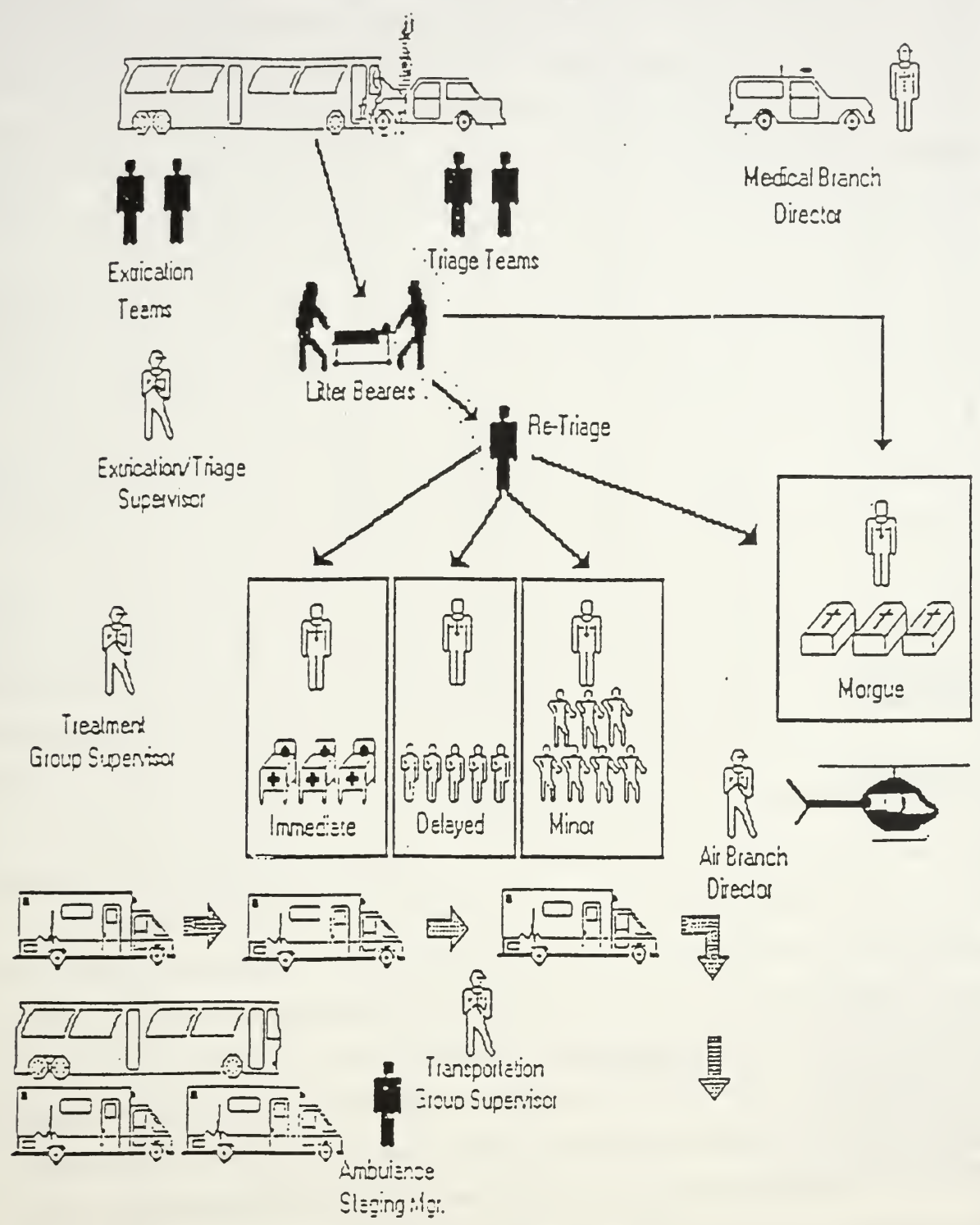
Event Log Coverage

We also present a diagram of the response system site participants from the Monterey County Multi-Casualty Incident Procedures to illustrate the relationship of these participants to each other.

- 1) Incident Commander
- 2) Public Information Officer
- 3) Liaison Officer
- 4) Safety Officer
- 5) Logistic Section Chief
- 6) Operations Officer
- 7) Personnel Staging
- 8) Equipment Staging
- 8) Fire Branch Director
- 9) Rescue
- 10) Medical Branch Director
- 11) Extrication/First Triage
- 12) Transportation Group Supervisor
- 13) Ambulance Staging
- 14) Air Branch Director
- 15) Treatment Group Supervisor
- 16) Re-Triage
- 17) Immediate Treatment
- 18) Delayed Treatment
- 19) Minor Treatment
- 20) CHOMP MICN
- 21) Watsonville MICN
- 22) Natividad MICN
- 23) Vehicle Events
- 24) Physical Occurrences
- 25) Law Enforcement Events
- 26) Victim Events
- 27) AMR Logs
- 28) Site Communications
- 29) Helicopter Logs
- 30) County Communications

Rec

Multi-Casualty Incident Site Plan



Note: Direction of ambulance travel should be established to ensure that they travel to the "Immediate" treatment area then the "delayed" and finally the "minor" treatment areas.

	Incident Commander	PIO	Liaison Officer	Safety Officer
900				
901				
902				
903				
904				
905	Begin			
906				
907				
908				
909				
910				
911				
912				
913				
914				
915	IC Chief Glass			
916	Distribute Tags Call for blankets			
917				
918	update incident assn 6571 Ext/Triage			
919				
920				
921				
922	don ID vest			
923	designate staging area No. 7602			
924	send extrication group order 4 amb & helo	IC inform press & TV		
925	MTA helicopter declare crime scene			
926	designate traffic plan reassn fire contain to triage			
927				
928	assn Bidder to Rescue			
929	assn Brown Med Branch			

	Incident Commander	PIO	Liaison Officer	Safety Officer
930	assn 6412 to Med Brnch			
931				
932				
933				
934				
935				
936	coms with morgue			
937				
938	send med equip to treat 6513 to extrication			
939	helo requ landing inst			
940	treat area established			
941	plan resource requests need extra people			
942	reconfirm staging area need 2 firemen land helo			
943				
944	landing zone set 2nd jaws request			
945	short handed 6211 on other side			
946	traffic plan established			
947	change helo landing zone			
948	EMS stationed			
949				
950	coms 1 vict left in van			
951				
952				
953				
954				
955	60 victims reported			
956				
957				
958				
959	confirm stage area move			

	Incident Commander	PIO	Liaison Officer	Safety Officer
1000				
1001				
1002				
1003				
1004				
1005				
1006	critical debriefing			
1007	set up eating schedule 2 new fire to Trans Group			
1008				
1009				
1010	request assist from Carmel			
1011				
1012				
1013	no staging area			
1014				
1015				
1016				
1017	people needed			
1018	Assign Safety Off #2175A Assign Liaison Off		don vest	
1019				
1020				survey scene check with EMS
1021				assign safety duties
1022	prog rpt 8 moved from scene 15 to Wats waiting			
1023	Enough Resources Spreckles Declined		report adequate resources	check with Treat Mgr
1024	Salinas no resonse			
1025	8 vict moved reported assn Rec Cross Logis Chf			
1026	assn 2175A PIO			
1027				check bus scene
1028	recv 14d 14i 35m report			
1029	assn 5500 Ops Chief			

	Incident Commander	PIO	Liaison Officer	Safety Officer
1030				contact IC, check rehab check personnel
1031	Highlands declines			
1032	assn Operations Chief			
1033	outlying fire declines			
1034				need rehab supervisor
1035				
1036				
1037		KION interview		
1038				
1039				1 rescuer hurt back
1040	real incident report remove PIO vest	Miller film shoot		safety meeting
1041				
1042	Watsonville patient inquiry			
1043				
1044	ask next helo destination			
1045	helo needs 1/2 hr refueling assn helo to Natividad	police interview		
1046	assn 3 NCFD to Medical			
1047	receive helo ETA 1054			check vehicle fluid environmental impact
1048		KION interview Red Cross		
1049				report to IC
1050		Medical Branch interview		get personnel records from Treat Mgr
1051				6513, 6571 PARS
1052	Air Ops checked in 15d, 19 i report			
1053				
1054				
1055	give news interview	IC interview		
1056	28 victims on scene, 62 total report			
1057				
1058				check Landing Zone safety
1059				

	Incident Commander	PIO	Liaison Officer	Safety Officer
1100				
1101				
1102				
1103				
1104				
1105				
1106				
1107	report 34 transported, 13 i on site	PG Fire interview		
1108				
1109				
1110				
1111				
1112	assn helo to Salinas			check OPS on vehicle movement
1113				
1114				
1115				
1116				
1117				
1118				
1119				
1120				
1121				
1122				demobilization alert clear area
1123				
1124				
1125				
1126				
1127				
1128				
1129				

	Logistics Sect Chief	Operations Officer	Personnel Staging	Equipment Staging
900				
901				
902				
903				
904				
905				
906				
907				
908				
909				
910				
911				
912				
913				
914				
915				
916				
917				
918				
919				
920				
921				
922				
923				
924				
925				
926				
927				
928				
929				

	Logistics Sect Chief	Operations Officer	Personnel Staging	Equipment Staging
930				
931				
932				
933				
934				
935				
936				
937				
938				
939				
940				request 2nd jaws
941				
942			2 from fire crew to extric.	
943				
944				
945				distribute litter boards
946				
947				
948				
949				
950				
951				
952				
953				
954				
955				
956				
957				
958				
959				

	Logistics Sect Chief	Operations Officer	Personnel Staging	Equipment Staging
1000				
1001				
1002				
1003				
1004				
1005				
1006				
1007			12 more fire. on scene 1 medical for break	
1008			no stage mgr, staff short	
1009				request for straps, c-spine gear, and collers
1010				requ. for roller bandages, can't get
1011				
1012				
1013				
1014				
1015				
1016				
1017				
1018				
1019				
1020				
1021				
1022				
1023				
1024			report adequate resources	
1025			rehab area set up	rolling stretcher brought out
1026				
1027				
1028			4 fire to rest	
1029			1 more to rehab	

	Logistics Sect Chief	Operations Officer	Personnel Staging	Equipment Staging
1030		don ID vest	groups of 6 to rehab	
1031		check communications 5211 call in	call Logistics for juice	
1032			work about 1 1/2 hr before break	
1033		contact Salinas 5500 instruct on route	breaks 3-5 min	
1034		develop Operations plan		
1035				
1036				
1037				
1038				
1039				
1040		get EMS vehicle report coms Wats can take 4		
1041		supervise operations	Logis brings in juice and supplies	
1042				
1043				
1044				
1045		determine resource needs brief ops personnel		
1046		extrication complete		
1047			regular rehab flow	
1048				
1049				
1050			65-89 fire fighters on scene	ON SCENE
1051				11 fire engines, IC van, 1 fire pick up, logistics van, 2 food trucks, 1 civilian car,
1052		Safety calls for advice		6 patrol cars, 2 trucks, EMS truck and trailer,
1053				2 fire trucks
1054		meet with IC		
1055	water to road block		temp relief to road block	
1056		change helo coms to Air Br.		
1057		brief PIO		
1058				
1059				

	Logistics Sect Chief	Operations Officer	Personnel Staging	Equipment Staging
1100	5.7 gal gas, 2 qts trans fluid to Red Cross		10-15 at Red Cross	
1101			IC coffee break	
1102		confer w Med Brnch		
1103				
1104		morgue wants bus moved		
1105				
1106				
1107		briefing on moving bus		
1108		check injured		
1109				
1110	request food for flight crew	slow down ambul returns		
1111				
1112				
1113				
1114				
1115				
1116		confer at rehab		
1117		7511 completes rehab		
1118				
1119		report to IC		
1120	flight crew gets food			pack up litter boards
1121				
1122				
1123				move tow truck to wrecks
1124				
1125				
1126				
1127				
1128		ON SITE 5510, 7511, 5211, 5313,		
1129		6571, 6611, 6573		

	Fire Branch Director	Rescue	Medical Branch Director	Extrication/First Triage
900				
901				
902				
903				
904				
905				
906				
907				
908				
909				
910				
911				
912				
913				
914				
915	check communications		don ID vest	start serious triage
916	review assignments direct extrication start			treat who can reach move and tag dead
917		determine #53 & #54 dead ext 2 bus back door		
918				
919				
920		3 more out bus back door		
921				
922				2imm 2dec 2 del extr
923	assign physical ops and extr groups	2 more delayed from bus	pass out triage tags	
924		1 imediate out		
925				
926	request equipment and personnel	3 rescuers in bus to help 1 imm out		minor injuries separated
927				
928				
929		ask for walking victims		

	Fire Branch Director	Rescue	Medical Branch Director	Extrication/First Triage
930	assign litter bearers	enter bus front cut front seat		move victims
931	assess bus front vict	3 imm out bus front		organize area move serious to amb area
932				
933				
934				
935	address treatment group	#23 out of bus	immediates on boards	
936		first back boards on scene		
937		decide cut front of bus		
938	coordinate with Transport Group Supervisor	cover victims with blankets		
939				ran out of tags lay out tarps
940				short of personnel
941		cut bus bars with jaws	neck wounded on boards	
942	lay out tarps	1 out on back board		
943			look for immediate victims	
944		work both ends of bus	move victims to tarps	
945		going in van sun roof		still extricating EMT crew retriaging
946			tend to immediates	
947		1st victm from van		
948				
949				
950		1 out on back board leave 3 dead on bus		
951		extrication complete		
952				
953			vict lying by van tape area	
954			neck brace on 2 imm for helo	
955				
956				
957			victims to helo	c-spine and back boards ordered
958				
959			get victim count	2 rescuers per patient

	Fire Branch Director	Rescue	Medical Branch Director	Extrication/First Triage
1000		9 deceased		
1001				
1002		covering bodies	tell IC num of injuries	
1003			pass out vests brief team	
1004				
1005				
1006			assemble strike team ask if TGS needs personnel	
1007				
1008			requ equip and personnel inventory from groups	
1009			plan 6 by air	
1010				
1011				
1012				
1013				
1014		14 deceased	requ tgs come to medical	
1015				
1016				
1017				
1018				
1019				order more supplies
1020			notify extric of equip needs	walking wounded to van send people to rehab
1021				
1022			8 patients moved 15 ready for Watsonville	
1023				
1024			receive resources OK rpt	
1025				
1026				
1027				
1028			assign runners	
1029				

	Fire Branch Director	Rescue	Medical Branch Director	Extrication/First Triage
1030	don ID vest		head count, ask if resources needed	
1031			requ 2 more engine companies	
1032				
1033				
1034				
1035				
1036				
1037			rescuer strains back	
1038				
1039				2 patients to CHOMP
1040				2 more to CHOMP
1041				
1042				
1043				
1044				
1045			operations briefing	
1046		move deceased to morgue area		
1047			count 14 sent, 14 min rem	
1048		ask to take deceased out of bus	19 remain for care 15 in morgue	
1049			get ambulance briefing	
1050			ops briefing complets 60 cared for	
1051				
1052				2 patient to CHOMP destination confusion
1053			move patients closer to helo landing	
1054				
1055			inspect area	
1056				
1057				
1058				
1059				

	Fire Branch Director	Rescue	Medical Branch Director	Extrication/First Triage
1100		1st deceased from bus	Speak to patients	
1101				
1102			load patients on helo	
1103				
1104				
1105			count 13 remaining	
1106				
1107		15 deceased		
1108			check reuse of resources	
1109				
1110				
1111			2 to Natividad	
1112				
1113				
1114				
1115				
1116		all deceased out of bus		
1117			10 victims remain	
1118			release some fire fighters	
1119				
1120				
1121				
1122				
1123				
1124				
1125				
1126				
1127				
1128				
1129				

	Transport Group Supv	Ambul Staging	Air Branch Director	Treatment Group Supv
900				
901				
902				
903				
904				
905				
906				
907				
908				
909				
910				
911				
912				
913				
914				
915	don ID vest			
916	Medical Branch briefing			
917				
918	check scene			
919	start triage			
920	reassure people			
921	estab coms with MICN coms for 2 vans to Wats			
922	report 40 victims			
923	insure transportation sufficient			
924	2 vans arrive		get ETA for helo estab pick up point	
925	verify communications		estab radio channel	
926				Medical Branch briefing
927				
928				set up treatment triage
929	establish ambulance arrangement			

	Transport Group Supv	Ambul Staging	Air Branch Director	Treatment Group Supv
930	transportation established			
931				
932				
933		CCT-3 arr boards from 846		stretchers to treat area
934	set up ambulance route			
935		2 boards from CCT-3 AMR assigned Amb Stage		
936				
937	move, area too congested	2 boards from 844 oxygen from 844		
938				estab treat area assign paramedics
939				
940	insure transport capability			estab coms with treatment managers
941				
942	move patients			
943				
944	log triage tags	5th ambulance arrives		
945				assign re-triage
946				
947	ready for transport			
948				com sites to Med Brnch Dir
949				
950				assure prioritization advise Trans Grp Supv
951	insure transport capability	Trans Grp Supv briefing		
952		stretcher from 846		assign 2 patients to helo
953	confusion on destinations			
954	report 26 immediate		triage 2 helo victims	
955		2 loaded for CHOMP estab coms with Fire &TGS	move 1st to helo	
956				
957	request blankets commence loading			
958				move ambul to immediate
959	coordinate with hospital	stretcher from CCT-3 CCT-3 to Natividad	secure helo for lift off	

	Transport Group Supv	Ambul Staging	Air Branch Director	Treatment Group Supv
1000				coord loading with Trans Group
1001				
1002				assure supplies available
1003				
1004		both vans (15) filled		
1005		1 patient into 829		
1006			Med Group briefing	
1007		2nd patient into 829		
1008				
1009	reassign xport units after transport			
1010				
1011	set ambulance rotation			
1012	836, 840, 828, 82?, 841 available			
1013				
1014		will have 5 ambul max		
1015				
1016	adv Med Brnch Supv of add resource needs			
1017				
1018				
1019	Med Brnch Supv Confer			
1020		CCCT-3 leave for Wats		
1021		White van leave for Wats		
1022	8 moved out, 15 ready			call for rehab personnel
1023				
1024	15 walking ready for Watsonville			
1025				
1026				
1027				cover dead bodies
1028		infant to morgue		
1029	coord with Air Brnch Dir			

	Transport Group Supv	Ambul Staging	Air Branch Director	Treatment Group Supv
1030		843 to CHOMP		
1031				
1032				
1033	triage tag problem			
1034				
1035				
1036				
1037	request helo to Natividad			
1038	Natividad full			
1039	request 1 imm to CHOMP	846 to CHOMP		
1040				
1041	12 have been transported			
1042				
1043	2 to Natividad by helo 2 more to Natividad			
1044		no more ambulances		
1045	Operations briefing try coms CAL5			
1046				
1047				
1048				19 immediate left
1049				
1050		mother & baby in 844 to CHOMP		
1051				
1052				take dead to morgue
1053				
1054				
1055				
1056				
1057				
1058			helo lands	
1059			direct helo to natividad	

	Transport Group Supv	Ambul Staging	Air Branch Director	Treatment Group Supv
1100	16 transported		assess patients for flight	
1101			load patient	
1102	waiting for ambulance		load patient	
1103				11 dead in morgue
1104			helo departs	
1105				11 remain for hospital
1106				
1107				
1108	delay in patient movement			
1109				
1110				
1111				
1112		amb 846 arrives		
1113				
1114	2 by ambulance to CHOMP			
1115		843 to CHOMP		
1116				
1117				
1118	2 by amb to CHOMP			
1119				
1120	demobilize	846 to CHOMP		
1121				exercise ends
1122				
1123				
1124				
1125				
1126				
1127				
1128				
1129				

	Re-Triage	Immediate Treatment	Delayed Treatment	Minor Treatment
900				
901				
902				
903				
904				
905				
906				
907				
908				
909				
910				
911				
912				
913				
914	move walking victims assign victims to areas			
915				
916				
917				
918				remove victims treat victims arm
919				
920			Treatment Group set up	
921		remove T#637		
922			ID 5 as delayed	
923				talk with distressed victims assign 13 to van
924				
925		Trans Grp Supv briefing		begin treatment
926		request personnel and supplies		obtain briefing request personnel & suppl.
927		move patients		
928				
929				about 12 treated

	Re-Triage	Immediate Treatment	Delayed Treatment	Minor Treatment
930	insure tags correct			
931				
932				
933	move immediate to triage			
934				
935		establish victim needs and priorities		
936			ID 2 as delayed	
937				
938				
939				inform TGS of sport needs
940	everyone out? direct to treatment areas		move delayed to re-triage	separate victims by needed care
941				
942				
943				
944				
945	request medics, supplies and litter bearers			
946				
947				
948				
949				
950				
951				
952		load ambulance #846		
953				
954		1 to helo 1 to helo		
955				
956				
957				
958				
959				

	Re-Triage	Immediate Treatment	Delayed Treatment	Minor Treatment
1000			set up delayed treat tarp	release no-care victims insure depart safely
1001				
1002				
1003				
1004				
1005	pregnant patient on board		upgrade 1 to immediate take status count	
1006				
1007				
1008				
1009				
1010			walking delayed to van	
1011				
1012	load van for Watsonville			
1013				
1014				
1015				
1016				
1017				
1018				
1019				
1020				
1021				
1022				
1023				
1024				
1025				
1026				
1027				
1028				
1029				

	Re-Triage	Immediate Treatment	Delayed Treatment	Minor Treatment
1030				
1031				
1032				
1033				
1034				
1035				
1036				
1037				
1038				
1039				
1040				
1041				
1042				
1043				
1044				
1045				
1046				
1047				
1048				
1049				
1050				
1051				
1052				
1053				
1054	prioritize patients			
1055	start personnel records			
1056				
1057				
1058	count victims			
1059				

	Vehicle Events	Physical Occurrences	Law Enforcement	Victim Events	CHOMP MICN
900					
901					
902					
903					
904					
905					
906					
907					MCI Alert 40 + ? victims
908					
909			provide assistance to safety officer		
910	PG Police Arrive		provide assistance for victim control		
911			begin triage	police begin triage	
912	Amb Arr #834- (843) 2nd Police Arr				MCI activation
913	PG Fire 6571 Truck Arr			Pol move min inj to side 17 out	
914	2nd PG Fire Arr	Bus Driver Arrested			
915			determine if crime scene		CHOMP notified to be base hospital
916				remove walking move and tag dead	notify Natividad
917				2 extr bus back door	notify SVMH
918	3rd PG fire arr	arrest woman driver			notify Watsonville
919					2-3 Crit ER, 4 ICU, 2 OR crews, 10-20 gen avail
920				3 out bus back door	NMC 15 ER, 0 ICU, 0 OR 15-20 gen @ 10:00
921		begin on fire		tagging dead	Wats 6 ER, ICU clos 1 OR, ukn gen avail
922				2 imm 2 dec 2 del out	
923	red cross arr			2 del out of bus	
924	2 vans arrive	fire contained		1 imm out	
925	2nd ambulance arr				
926		fire fighters in bus		separate minor injuries	
927					
928		hose car again			
929					

	Vehicle Events	Physical Occurrences	Law Enforcement	Victim Events	CHOMP MICN
930			set up traffic control check coroner call	20 in bus, 20 sitting 3-4 dead	
931				3 imm out bus front	
932					
933		bring out back boards	operate morgue		
934			do body count chalk marking		
935				# 23 out of bus immediates on boards	
936		1st back boards on scene			
937	helo arrives				
938				cover victims with blankets	
939				triage complete	
940			preserve evidence		
941				neck wounded on boards	
942				1 out of bus on back board move victims around	
943				4 victims on tarp	
944	5th ambulance arrives			move victims to tarps	
945		going in van sun roof area contained reported	area contained	still extricating 6 victims immediate tarp	
946	EMS arr south side MC trailer arr				
947		more medical support arr		1st victim from van 13 victims on immed tarp	
948		med equip to treatment			
949					
950			measure area area secured	1 out on back board leave 3 dec on bus	
951				extrication complete	
952	helo landed				
953	2 trucks & bronco arr	helo stretcher unloaded			Corns 60+ vict, 25 crit, 20 walk, 2 still trapped
954	two fire eng around back			neck brace on 2 immediate for helo	
955			question drunk	1 ambulance loaded 25 critical, 2 trapped in bus	Corns CHOMP ETA 10-15 min with 2 imm
956					
957				1st victim to helo	
958				2nd victim to helo	
959	B271605 to CHOMP amb ready for Natividad		call for Monterey status		

	Vehicle Events	Physical Occurrences	Law Enforcement	Victim Events	CHOMP MICN
1000				9 deceased	
1001					
1002			communications bad	covering bodies	095669 & 095666 arrive
1003					
1004					
1005			not enough blankets to cover dead use sheets	patient into 829	
1006	ambulance to Natividad				Coms CHOMP ETA 5-10 NMC ETA 25-30
1007		food to rescuers		2nd patient into 829	
1008					
1009				patients loaded	
1010	Salinas 5510 arr				
1011					
1012					
1013	ambulance departs				
1014	morgue established		request radios	14 deceased	
1015					
1016					
1017	Carmel Valley arr				Coms CHOMP ETA 5-10 NMC ETA 20-30
1018					
1019					
1020				walking wounded to van CCCT-3 leave for Wats	
1021					
1022	minor treat van departs			8 moved out, 15 ready	
1023					Coms WCH ETA 1025 still loading 14 by van
1024				15 walking ready for Wats	27685 & 095679 arrive
1025	coroner arrives		coroner arrives		
1026		rehab established			Coms NMC ETA helo unk Coms van leaving for WCH
1027					
1028			direct ambulances		
1029			second coroner arrives		Coms helo to WCH

	Vehicle Events	Physical Occurrences	Law Enforcement	Victim Events	CHOMP MICN
1030		coroner taking pictures			Coms CHOMP ETA 15
1031					
1032					
1033	ambulance arrival				
1034	ambulance departs ambulance arr				
1035					
1036					
1037					Coms CHOMP ETA 10-15
1038					
1039				2 patient to CHOMP 12 have been transported	
1040				dec from van baby only 2 more to CHOMP in 846	
1041			van driver arrested		095638 & 095682 arrive
1042				1st deceased examined	
1043				2 to Natividad by helo 2 more to Natividad	
1044			move press		095639 & 664373 arrive
1045			talk to news		
1046				move deceased to morgue area	
1047				count 14 sent, 14 min remain	
1048				19 remain for care	
1049					
1050				60 patients cared for woman & dead baby to CHOMP	
1051					
1052				2 patients to CHOMP destination confusion	
1053				move patients closer to helo	
1054					
1055					
1056					
1057					
1058					
1059					095696 & 095700 arrive

	Vehicle Events	Physical Occurrences	Law Enforcement	Victim Events	CHOMP MICN
1100				1st deceased from bus	
1101					
1102				load patients on helo	
1103					
1104				helo takes off	
1105				2 loaded on helo count 13 victims remain	
1106					
1107				15 deceased	Coms 2 to CHOMP
1108					
1109		clean up trash			
1110			instruct on evidence under vehicle		095667 & 095678 arrive
1111					
1112	ambulance arrival				
1113					
1114					Coms CHOMP ETA 10-15 Coms requ on scene info
1115				2 in 843 to CHOMP	Coms requ no more xport
1116				all deceased out of bus	
1117				10 victims remain	
1118					
1119					
1120				2 in 846 to CHOMP	
1121					
1122	fastest ambulance turn around 40 min				095646 & 666131 arrive
1123					
1124					666126 & 095647 arrive
1125					Coms CHOMP ETA 10-15 last 2 xport
1126					
1127					
1128					
1129					

	AMR Logs	Site Communications	Helicopter Logs	County Communications
900				
901			at monterey airport	
902				
903				
904				
905		Start Exercise		
906				bus overturned call many injuries reported
907				
908				location report
909	#836 dispatched			call MCI
910				additional responders need
911	#836 at site			location ID
912				CHP advised
913				
914	#840 dispatched			MCI trailer needed form fire strike team
915	#829 dispatched			PM notified MCI 570 pol request MCI
916		communications check		T6571 on scene
917				advise Santa Cruz of MCI call CV amb, no response
918				
919				CHP on scene, DUI, notify CHOMP MCI, call MC/EMS
920				E6412, E0612 en route E6513 on scene
921		Trans Grp establish MICN communications		orange frequency assigned
922				CH 6406 back
923	#828 dispatched			EMS notified Harry advised
924		press and TV notified		page MRY airport for trailer
925		Air Branch establish radio channel		call for 2 off duty police for morgue
926	#840 at site			CALSTAR advised and en route
927		IC to Triage	MCI activation from County Coms	
928	#829 at site			
929				request contact coroner

	AMR Logs	Site Communications	Helicopter Logs	County Communications
930		IC cell phone to dispatch to confirm resources		
931		IC-Treat Grp add resources		CALSTAR ETA + 5 min
932		use tactical Silver		
933			lift off from MRY	advise Coast Guard of drill Navy fire advised
934				
935		Airport to IC, helo on way		
936	#828 at site	IC helo 3 min out	arrive accident scene no landing zone	
937				
938		helo requests land zone		
939		Treat Grp establish coms with treatment mngrs		police call for Landing Zone
940				
941				
942				Land Zone communication
943				
944				
945				
946				
947				Marina advises can't respond
948				E5501 responding
949				police ask if PIO established
950			land at incident site	
951				
952		commun land zone with hospital		CHP can't com with PG on portable
953				
954				
955		Trans Grp establish coms		
956				6 deceased confirmed
957				Highlands declines
958		Highlands declines		
959		Law calls for Mry status		

	AMR Logs	Site Communications	Helicopter Logs	County Communications
1000				
1001	#828 depart with 2		take off for Watsonville	
1002		police coms bad		
1003		victim count report 9 dec 14imm 35 del/min		
1004				
1005		Coroner on way		
1006				
1007				
1008				
1009				
1010		request Carmel assistance		14 dead confirmed
1011				
1012		Crml can't provide type 1	land at Watsonville	
1013		Med Brnch requ Trans Grp presence		
1014	#840 depart wwith 2	Amb Stag report 5 ambulance max		CH6500 dead confirmation
1015	#829 depart with 2	police request radios		coroner updated
1016		no coms vans to hospital		
1017				
1018				
1019	#828 arrive CHOMP	equipment transport to Trans Grp		Spreckles refuses
1020		Med Brnch notify of needed equipment		5211 will respond
1021	#840 arrive CHOMP			
1022	#840 dispatch #2	report 8 moved, 15 to Wats		ME5313 respond for Salinas fire
1023		Spreckles declines Coroner on way		
1024		report to Med Brnch resources OK	lift off from Watsonville	
1025				
1026				
1027		helo requests next destin		
1028		victim report		AMR M calling back CALSTAR
1029				

	AMR Logs	Site Communications	Helicopter Logs	County Communications
1030	#840 arrive site	Med Brnch requests 2 more engine companies		
1031		Highlands declines Wats reports full		
1032				STAR 1 to where?
1033				
1034	#836 depart with 2			coms with STAR 1
1035				
1036				
1037				
1038		Trans Grp, Natividad full		
1039				police 871 en route
1040		real incident reported EMS vehicle report	land at MRY for fuel due to long hover time at site	
1041		Wats says can take 4 more		
1042		Watsonville inquires about number of patients		
1043	\$840 depart with 2			
1044				CH 6500 wants STAR return to land zone
1045		helo reports need of 1/2 hour for refuel		
1046				MRY reports STAR refueling
1047		helo reports ETA 1054		
1048		Safety calls Ops Officer for advice		
1049				
1050				
1051				
1052				
1053				
1054				
1055				
1056			lift off MRY airport	
1057				
1058				
1059				

	AMR Logs	Site Communications	Helicopter Logs	County Communications
1100				
1101				
1102				
1103				
1104	#840 arrive CHOMP	morgue to Ops Officer wants bus moved		
1105	#836 arrive CHOMP #829 arrive NMC			
1106	#840 dispatch #3			
1107				
1108				
1109				
1110				
1111				
1112		coms brief by airport general manager		
1113				
1114	#840 at site			
1115				
1116				
1117				
1118				
1119				
1120		all hospitals report full		
1121				
1122				
1123				
1124	#840 depart with 2			Cml ETA + 45 at scene
1125				
1126				
1127				
1128				E661 returning
1129				
1140				E612 returning
1144	#840 arrive CHOMP			
1154				AMRM no disposition
1155				STAR1 complete
				demobilization declared
				EMS 870 in service

Appendix 4 Data Collectors and Participants Coverage

The lack of participant names does not necessarily imply that the function was not fulfilled by an unnamed participant or by some other person or persons who may have had multiple responsibilities. The dynamic nature of the MCI response appeared evident in the data collection and revealed the need for functional coverage by the data collectors in addition to personnel coverage.

	<u>Position</u>	<u>Person</u>	<u>Data Collector</u>
1.	Incident Commander	Chief Glass, PGFD	Jennifer M. Moffitt
2.	Public Information Officer	Sgt. Uretsky, PGPD	Shayne Foote
3.	Liaison Officer		Robert Smith
4.	Safety Officer	Mike Downing	Charles Hodges
5.	Logistics Section Chief	Lorie Schuman, ARC	Julia Watson
6.	Operations Section Chief	Steve Negro, SRFD	Amelia M. Gonzales
7.	Personnel Staging Manager		Lisa Prayerter
8.	Equipment Staging Manager		Joshua Miller
9.	Fire Branch Director		Holly M. Kline
10.	Physical Extrication/Rescue Branch	Cpt. Napier	D. Evans
11.	Medical Branch Director	David Brown, PGFD	Holly M. Kline
12.	Extrication/Triage Grp. Sup. & First Triage		J. Hooper
13.	Transportation Grp. Sup.	Greg Dukart, AMR	DeNormande
14.	Ambulance Staging Manager		Denise Lawson
15.	Air Branch Director	Steve Prelsnik, SFD	Brian M. Smith
16.	Treatment Group Sup.		T. Duke
17.	Re-Triage/Litter Bearing		R. Ramnarain
18.	Immediate Treatment Group		Lee Goodridge
19.	Delayed Treatment Group		William Gilbert
20.	Minor Treatment Group		Jason Kirkman
21.	Law Enforcement Br. Dir. & Activities	Tom Uretsky, PGFD	Sheena Appel
22.	Public Works Activities		John Tirrell
23.	Hospital Arrival (CHOMP)	Mary Wurth	Ken Van Sparrentak
24.	Hosp. Arrival (Watsonville)		Jennifer Williams
25.	Hosp. Arrival (Natividad)		T. Keller

Appendix 5 Data Collector Packets

Each data collector listed in Appendix 4 was given the listing of data collection structure which shows the 30 activities monitored, the ICS overview chart, and the Multi-Casualty Incident Site Plan diagram.

The data log pages are based on ICS 214 Unit Logs containing a duty list appropriate for each unit supervisor. Data log pages for most of the positions were effectively identical to those presented here for the incident commander. Note that the logs consist of a Duty Checklist and a narrative log where the data collector enters events they observe. The Immediate Treatment log included has the same format as the Incident Commander's, but the narrative log has prompts of the types of events, and associated information, that are to be recorded. These two logs are representative of the 30 used.

The data collectors wrote in their observations and times in both the events checklist and the data log pages.

Modified ICS 214 Unit Logs
Created for NPS Multi-Casualty Incident Data Logging

- 1) Incident Commander
- 2) Public Information Officer
- 3) Liaison Officer
- 4) Safety Officer
- 5) Logistic Section Chief
- 6) Operations Officer
- 7) Personnel Staging
- 8) Equipment Staging
- 8) Fire Branch Director
- 9) Rescue
- 10) Medical Branch Director
- 11) Extrication/First Triage
- 12) Transportation Group Supervisor
- 13) Ambulance Staging
- 14) Air Branch Director
- 15) Treatment Group Supervisor
- 16) Re-Triage
- 17) Immediate Treatment
- 18) Delayed Treatment
- 19) Minor Treatment
- 20) CHOMP MICN
- 21) Watsonville MICN
- 22) Natividad MICN
- 23) Vehicle Events
- 24) Physical Occurrences
- 25) Law Enforcement Events
- 26) Victim Events
- 27) AMR Logs
- 28) Site Communications
- 29) Helicopter Logs
- 30) County Communications

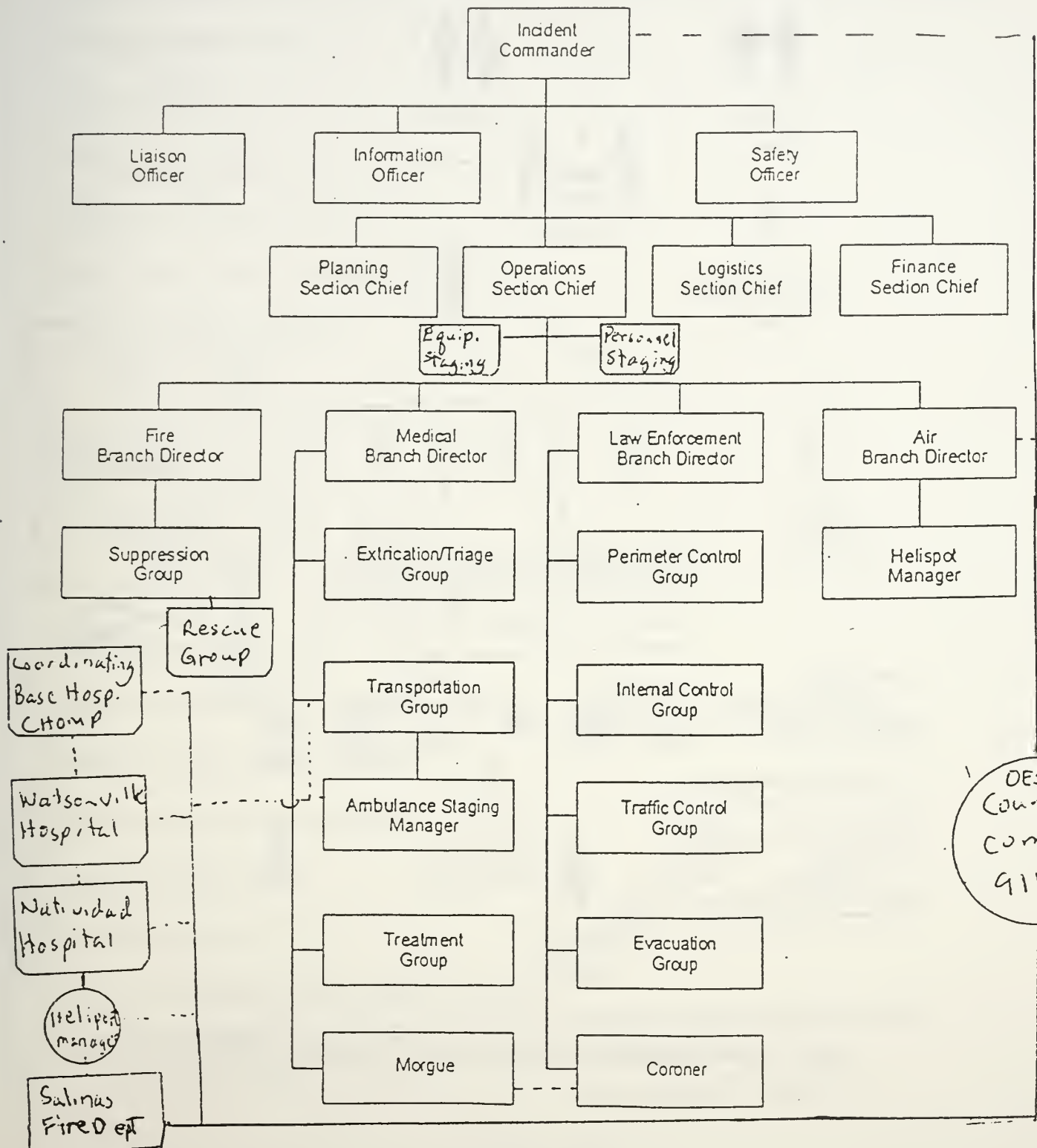
The forms consist of the standard Checklists and modified ICS 214 Unit Logs.

Nov. 22, 1997
MCI Drill

TITLE: MULTI-CASUALTY INCIDENT (MCI) PLAN

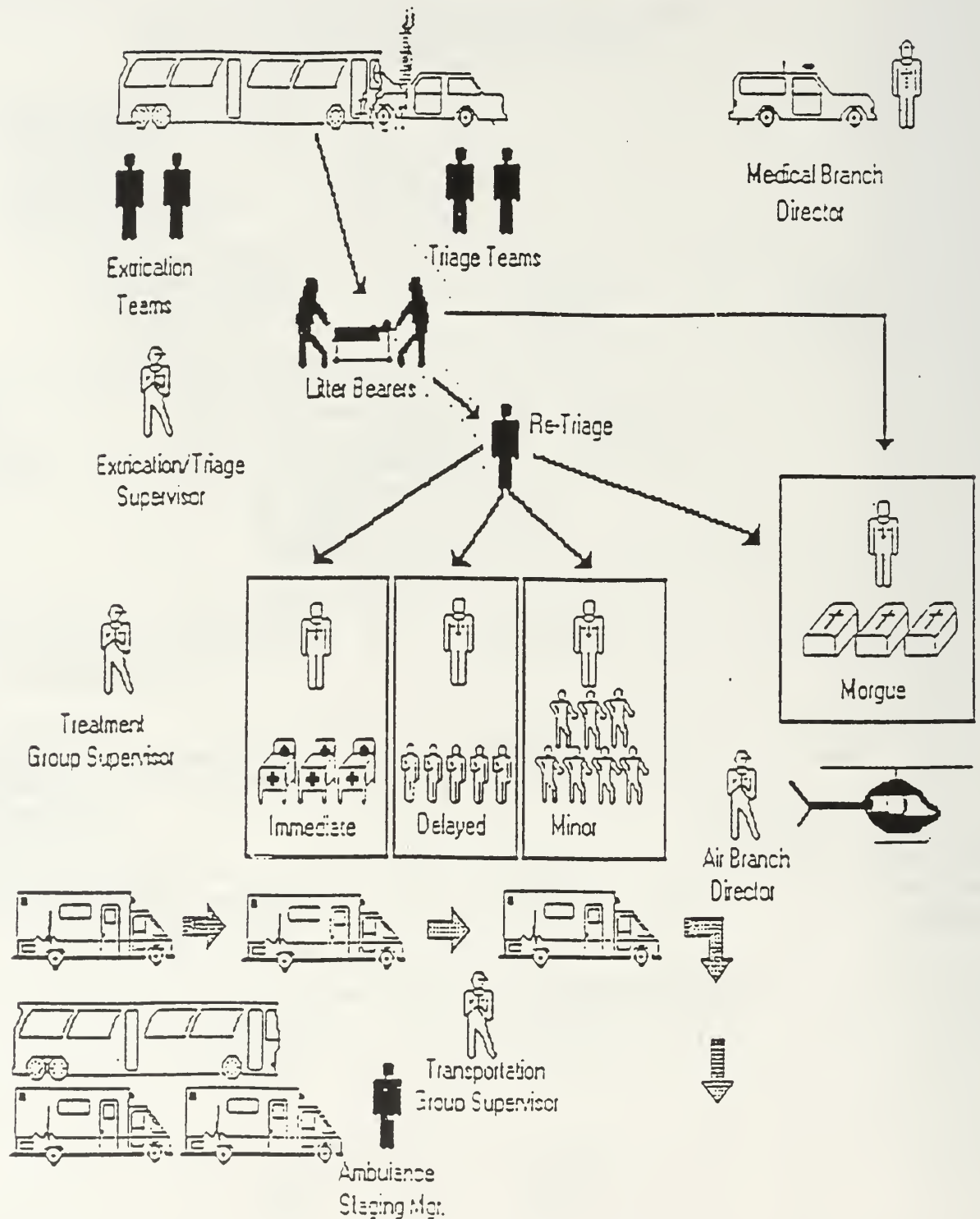
CHAPTER: DISASTER
REFERENCE NUMBER: 500-34

ICS OVERVIEW CHART



Rec

Multi-Casualty Incident Site Plan



Note: Direction of ambulance travel should be established to ensure that they travel to the "immediate" treatment areas then the "delayed" and finally the "minor" treatment areas.

INCIDENT COMMANDER (IC) - DUTY CHECKLIST

Radio Call "Incident Commander"

Name _____ PG Fire Dept Exercise 11/22/97 Data Collector _____

The Incident Commander is responsible for incident activities including the development and implementation of strategic decisions and for approving the ordering and releasing of resources.

Assess incident situation Time _____

Initiate MCI alert _____

Don ID Vest _____

Establish and check communications _____

Identify obvious safety hazards _____

Appoint Command Staff _____

Safety Officer _____

Public Information Officer _____

Liaison Officer _____

Appoint General Staff _____

Logistics Chief _____

Operations Chief _____

Planning Chief _____

Finance Chief _____

Brief Section Chiefs _____

Approve and authorize implementation of Incident Action Plan _____

Establish common communications _____

Designate a centralized treatment area _____

Designate staging areas _____

Designate traffic plan _____

Designate a medical equipment strip/supply area _____

Determine information needs and inform command personnel of needs _____

INCIDENT COMMANDER (IC) - DUTY CHECKLIST

Page-2

- Request additional resources as needed _____
- Authorize information release to news media _____
- Receive situation updates _____
- Assign incoming units as needed _____
- Approve Demobilization Plan _____

INCIDENT COMMANDER

PG 11/22

ICS 214(N) UNIF LOG

Name #1 _____ Name #2 _____

Logger Name _____

[illegible]

IMMEDIATE TREATMENT - DUTY CHECKLIST

Radio Call "Immediate"

Name _____ PG Fire Dept Exercise 11/22/97 Data Collector _____

The Immediate Treatment Unit Leader reports to the Treatment Group Supervisor. The Unit is responsible for on-site medical treatment for victims requiring immediate care due to their condition being near-term life threatening.

Obtain briefing from the Treatment Group Supervisor to determine the expected number of victims to be treated Time _____

Request the needed numbers of medical personnel for the Treatment Area _____

Request the needed supplies and equipment for the Treatment Area _____

Establish victim needs and treat on a priority basis _____

Inform the Treatment Group Supervisor of victim status, and priorities for transport to medical care facilities _____

Prepare victims for transport _____

Request treatment personnel, personnel rotation, and supplies replacement as needed _____

Maintain treatment records and deliver to the Treatment Group Supervisor when the last on-site patient has been transported _____

Maintain Unit Log (ICS Form 214) _____

ICS 214(N) UNIT LOG

[illegible]

Appendix 6 Participant Comments

In order to insure that we obtained candid participant responses, we have edited and made anonymous the participant responses. The commentary are to be regarded as constructive criticism. In discussing the events with each participant, every group felt that the exercise was conducted professionally and efficiently. Drills such as this are necessary in order to insure appropriate MCI response. The minimal pre-scripting was designed so that the response was as close to reality as could be and realistic lessons could be learned. This MCI drill was not intended to be test for grading purposes, but as a training and education effort.

The participant responses are presented. In some instances there may be rationale for some of the observations listed under the question "What went wrong?", however the criticisms need to be accepted as points for consideration. Not all the responses were made by personnel fully trained in emergency response. There are instances in which particular individual participants did not receive communications, but others did. Not all observations apply universally. In keeping with the spirit that unanticipated observations can be obtained from eyes not accustomed to a particular mode of behavior, we present these participant comments.

A6.1 What Went Well?

1. Community Hospital reported that there was an excellent response to the call-in of emergency department staff both in terms of number of nurses and timely arrival within 30 minutes and the number of doctors available and participating
2. The exercise was valuable because of the number of hospital staff who participated from all departments including pharmacy, security, housekeeping, maintenance, and administration.
3. There was a smooth flow of patients within the hospital system
4. One fire department commented: First of all the drill was very well coordinated, the patients and scene appeared real and provided a life-like scenario. The magnitude of the scene insured that all responding agencies had a chance to participate. Good job on a big effort

5. Good realism about the scene
6. Congratulations on a very successful MCI drill. It was very clear that a great deal of preparation took place to ensure a productive learning experience for all involved.
7. The MCI vests played an important role in making identification easy.
8. I believe that this was one of the best MCI drill, that I have observed.

A 6.2 What Went Wrong?

1. Community Hospital did not hear any formal announcement from the scene that a multi-casualty incident had been activated.
2. There were delays in transport of victims. The first victim arrived at Community Hospital more than an hour after the drill started. Many victims were still on the scene awaiting transport after 2 1/2 hours.
3. The sudden refusal of one of the hospitals to participate as planned.
4. There were too many firefighters standing around in the triage area not being used.
5. There were unattended victims everywhere - especially in the "immediate" area and ambulances.
6. Rehab for firefighter and ambulance crews was established too late.
7. There were too many victims in the exercise with too many critical injuries.
8. There was confusion in the Treatment area because the patient treatment areas were not marked "immediate", "delayed", "minor".
9. Some patients were dropped because they were not strapped to backboards.
10. Some victims were dragged by one firefighter, others carried by two.

11. The Medical Treatment Supervisor was overwhelmed with a rush of engine companies and strike teams assisting with treatment. Also, there were too many individuals communicating with the Medical Treatment Supervisor.
12. There was no briefing of incoming personnel. I was assigned to a position without knowledge of the scene and positions assigned. I did not fully understand the objectives. Luckily I brought my own clipboard and checklist.
13. There was no staging prior to our entry into the scene. There were no T-cards being turned in, it was difficult to figure out the scene and ICS structure.
14. It was nearly one hour into the drill before the treatment areas were clearly established. This delay caused more personnel to be used in providing limited patient care.
15. Scene and site walk through not done by first Paramedic on scene to fully assess the number of patients and location.
16. The area was not secured early.
17. The patients were not moved from danger to safe treatment areas.
18. Pediatric patients were assessed/triaged very late - potential loss of life here.
19. Landing zone not established until almost one hour into exercise.
20. Police arrested both drivers of bus and van - are they in need of medical care? Yes. Shouldn't Police do more important things such as safety and evaluation of scene - not arresting drivers.
21. Walking wounded returned to the accident scene and confused the overall picture. (editorial comment: This comment illustrates what may happen in a very realistic event. Walking wounded are going to do just as commented here unless they are monitored, supervised or directed.)

22. Medical Branch Director got too involved with patient care.
23. Triage was done too close to accident scene.
24. Treatment area was too close to accident scene.
25. After "immediates" were moved into triage area, no one attended to them.
26. The morgue was set up very late.
27. The helicopter landing zone was established too close to the Incident Command post.
28. Triage should be done further from the scene.
29. At one time there were three people wearing Transport Group Supervisor vests which was confusing.

A6.3 Comments on Communications

1. Community Hospital commented that the communications from the scene was minimal with NONE during the first hour of the exercise. This is a critical period from the hospital coordinator's perspective since she needs to know how many victims there are at the incident and the nature of the injuries.
2. The use of MedNet 2 for Group Transportation Supervisor with Coordinating Base Hospital worked well.
3. The Coordinating Hospital did not receive notification that the drill was officially over.
4. From what I was able to gather, it appears that the radio communications were appropriate except for some obvious delays with County Comms dispatching other agencies. I heard that Salinas Rural Fire Dept. stated that they heard the request for additional units to be dispatched about 45 minutes before they received a page to respond.

A6.4 Comments on Command and Control

1. Excellent within Community Hospital - much improved from past drills.
2. Incident Command System positions were slow in being established. Operations Section Chief was not established until 1030, late into the exercise.
3. There was no briefing of incoming personnel. I was assigned to a position without knowledge of the scene and positions assigned. I did not fully understand the objectives. Luckily I brought my own clipboard and checklist.
4. The California Highway Patrol Officer, showed up, did his investigation, then left. Normally, as senior investigating officer he should have reported to the incident command and formed a unified command.
5. There was confusion as to who should talk to the helicopter - Air Operations or Transport Group Supervisor.
6. There was a delay in establishing the staging manager which had the result that there were a lot of people standing around after their assignment, such as extrication, was completed, because they didn't have anyone to report to for new reassignment.

A6.5 Comments on Physical Processes and Procedures

1. Moulage and victim participation were excellent.
2. The exercise was a good opportunity for testing the Hospital Emergency Incident Command System (HEICS) as recommended by SEMS.
3. The vans that were used to transport victims with minor injuries never reported to staging for check-in.
4. Dead bodies were being pulled out of the vehicles and left on the side of the road without being carried to a designated temporary morgue, preferably away from the walking

wounded. The dead baby was pulled out and left on ice plant without being covered by a sheet.

5. Paramedic reports on incoming hospital victims were too long and too detailed.
6. First-in police officers started triage right away (by directing all people who were not hurt to crawl out of the overturned bus), however there was no designated area for the walking-wounded to go to other than wandering around the wrecked vehicles.

A6.6 Value of the exercise to you and/or your organization

1. Community Hospital used the exercise to train many additional personnel in various in-house disaster roles - from administrative to supplies.
2. The exercise was of very high value to our participating fire engine crew and myself.
3. Major value - we can never have too many drills for practice and education.

A6.7 What to do differently the next exercise?

1. Do a table-top exercise prior to an actual exercise to go over exactly what's going to happen and get appropriate responses from all the key players. Then review procedures, etc. Make the exercise a real learning/education project rather than a "surprise".
2. Limit the transported victims to 10-20; limit the critical injuries to 5-7. Do not actually transport victims to hospitals with long transit times which will have long turn-around times. ("paper" patients work just fine).
3. Pay more attention to communications through County Communications..
4. Ensure that all incoming supervisors get an immediate briefing when they arrive which will allow assigned ICS personnel to obtain the Multi-casualty Incident objectives, the scene status, the locations, the personnel assigned, a clipboard with checklist and the appropriate identification vest.
5. Ensure that all incoming units report initially to a staging area.

6. Ensure that there is a proper demobilization.
7. The "Immediate" treatment area and the "Delayed" treatment area should be separated by enough space for the medical cache of supplies to be placed between them convenient to both.
8. Incoming personnel should be assigned key responsibilities such as Operations Chief, Medical Branch Director, Extrication/Triage, Transportation Group Supervisor, Staging Manager, etc. as soon as they arrive. They do not have to be officers since they can be relieved when others arrive.
9. Make it clear to all participants that Air Operations talks to medical helicopter.
10. Station a "data collector" at the County Comms 9-1-1 Center.
11. Establish treatment areas with appropriate signs as soon as possible to create catchment areas for triaged victims
12. One of the first-in Ambulance personnel should become Medical Branch Director, should don appropriate vest and meet with Incident Commander. He or she should not touch patients and get involved with care.
13. Walking wounded should go to their appropriate area and be secured by police or someone to prevent them from returning back into the accident scene.
14. Helicopter landing site should be far enough from the scene that the helicopter doesn't cause problems for the treatment area or the command post.
15. All unit leaders should put on appropriate identification vests and meet with their supervisors.
16. Rehab area with liquids and refreshment should be established early enough to help the initial responders.
17. Patients should be properly strapped to backboards.

18. Patient treatment areas should be identified early using paint, tarps, barrier tape, landmarks, etc. to avoid confusion.
19. If possible , four people should carry a patient properly strapped to a backboard.
20. Explorer scouts should be identified as explorer scouts.
21. It is recommended that the first-in fire company operate as follows: A) Captain makes a size-up while trotting around the scene - then establishes treatment areas and morgue area. B) Engineer secures the accident damaged vehicles - disconnects batteries, stops fluid and gasoline leaks, stabilizes vehicles with cribbing. C) Firefighter starts triage of victims.

